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TRAINING NEEDS AND ORIENTATION IN THE FIELD OF PHYSICAL PLANNING IN AFRICA

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I. INTRODUCTION

1. The first meeting of the Joint Intergovernmental Regional Committee on Human Settlements and Environment which was held in Addis Ababa, Ethiopia from 28 June to 2 July 1982, highlighted the important role that physical planning was expected to play in national development. It emerged at the meeting that a number of countries in Africa did not have the necessary expertise to develop and implement national physical planning policies. The meeting was of the view that technical assistance at the regional level should accordingly be focused on this problem in order to help those countries that had no technical expertise to formulate national physical planning policies in the foreseeable future. It felt that particular stress should be laid on the training of staff in physical planning.

2. In many countries the view was gaining ground that economic and social planning should be integrated with physical planning if balanced development was to be achieved. However, this view implied that most planning services and approaches should be recognized. It also meant that the specialized approach had to give way to an interdisciplinary approach in the recruitment of staff for integrated development planning services.

3. The objective of physical planning was to make the optimum use of space to satisfy the needs of all the people. In Africa, the priority needs currently flet by States was for a better balance in the use of national space, a better distribution of the benefits of human endeavour in the world at large among the people of each country.

4. The priority objectives of physical planning should be the following :

- A better distribution by activity of the population throughout the national space;
- Organization of national space and activities to mitigate disparities between regions in the same country;
- Securing the future through protection of the environment and rational exploitation of fungible resources;
- Organization of production activities in order to reduce dependence on the outside world.

5. Physical planning avoids wide disparities occuring between regions, urban and rural areas and anarchy in the distribution of facilities, housing, infrastructures and population. It seeks, in this wise, to order economic and social development..

6. African countries are becoming increasingly aware of the importance of physical planning because nearly all of them are faced with serious interregional imbalances. For a long time, the siting of development projects seldom took into account the balanced distribution of activities on national territory. However, the rural-urban drift and the over-population of the towns (in particular national capitals) have combined to give pause to African States and make them ask themselves questions about the future. Sometimes, the States set themselves ambitious objectives such as the construction of new capitals, the development of new land and the resettlement of people from areas considered over-populated in sparsely-populated areas. Most often, the results achieved fall far short of the hopes expressed. These failures sometimes result from factors beyond the control of the country. Other failures, are on the other hand endogenous and should be analysed objectively, understood and corrected as soon as possible if they are not to compromise the speed at which Africa should develop economically and socially. The most important of these negative factors are the poor organization of the physical planning sector and its inadequacy in the quantity and quality of staff. This paper will pinpoint a number of the problems and propose some iterim solutions.

II. THE ROLE OF PHYSICAL PLANNING IN DEVELOPMENT

7. In the developing countries, generally, differences in the level of development between regions and the backwardness of certain regions as compared to others within the same country have served as a basis, if not a pretext, for many projects. Often, no workable regional studies happen to have been prepared. Space does not appear to have the same economic and social value everywhere. The possible combinations of factors, costs and reluctance vary from place to place in the same country. Most African countries have therefore had to prepare economic and social development plans as a means of reducing this gap, promoting speedy industrialization and diversifying their economy.

8. Economic and social development plans have the aim of expanding national economies, increasing incomes and living standards and creating jobs in all sectors of the economy.

9. Major communications infrastructures, transport networks, public facilities and industries come into being as these objectives are achieved and contribute to opening up peripheral regions through the establishment of appropriate services.

10. At the same time as economic development and higher standards of living are achieved, spontaneous migration begins and intensifies. Towns develop as a result of urbanization, creating problems of space organization because of the need to build houses for people, establish communication channels, transport water supply, sewage, electricity and telephone and other networks.

11. Such major economic changes will create great imbalances between regions, towns and villages and anarchy in the distribution of facilities, housing infrastructures and population if no deliberate effort is made to bring in some order.

12. Physical planning should be introduced into this process in order to find workable solutions in the organization of economic space. In this way, physical planning becomes a tool for organizing economic and social development. By seeking the best possible adaptation of society and economies to space, it shapes the image of the country and becomes the long-term spatial manifestation of a country's development effort.

13. For a long time, human settlements in Africa have been subjected to development efforts more than they have genuinely been associated with those efforts. The combined efforts of the Intergovernmental Regional Committee on Human Settlements, in implementation of the principles and guidelines defined in the Lagos Plan of Action, has resulted in a redefinition of space organization objectives. Among the priority areas that require immediate action in Africa, the Lagos Plan of Action provides for better planning of towns and villages in terms of space allocation for facilities and the preparation of rural development projects using appropriate technology to stem the rural-urban drift.

14. It might be asked whether the current organization of the physical planning sector is adequate for the attainment of the objectives set forth in the Lagos Plan of Action. If it does not, the question then becomes one of identifying the impediments and finding out how they can be removed.

III. ORGANIZATION OF THE PHYSICAL PLANNING SECTOR

15. In Africa, the first physical planning policies date back to the years immediately following independence. Those policies had less to do with genuine physical planning than with investments specifically made for reasons of political expediency. The investments were most often allocated to urban areas and seldom to villages. It might have been forgotten that human settlements were an integral part of physical planning and (as indicated in the preceding chapter) that space organization was crucial to development. While those activities made it possible to absorb part of the population, they were not enough to integrate all the people in terms of organizing them and spreading them out over the entire territory.

16. Generally, the physical planning sector in Africa is inadequately organized because physical planning is a new subject of which countries have little experience. Staff in most of the countries are few in number and insufficiently trained.

17. When considering the staffing of physical planning organizations in Africa, the main questions that need to be settled are the number and calibre of staff, not to mention their experience and training without which development cannot be achieved. Obviously, the human qualities and the manner in which such staff are trained are another important consideration.

A. Staff skills

18. Team work is required to carry out physical planning policies. The team should be made up of people from the economic planning, social welfare, technical and statistical departments. Not all these experts need to be directly part of a physical planning institution, but the institution should be able to call on their expertise whenever necessary. The physical planning expert, on his part, should be capable of analyzing the economic situation of a country, foreseeing the needs of the people and most especially, be able to interprete collected data in such a way as to use them appropriately in space allocation studies. His training should therefore be multi-disciplinary so as to enable him to grasp and use the information supplied by various experts who are engaged in physical planning.

19. By the nature of his work, a physical planning expert is an observer of the social and economic trends as they relate to the transformation of the geographical space of a country. He therefore needs to be highly capable of analysis and synthesis.

B. Staffing needs

20. African countries should try to formulate plans for physical development at the same time as they make plans for economic and social development. This can be done only if particular stress is laid on the training of the necessary personnel to design and implement those plans. African countries suffer from a substantial deficit of physical and urban planners. A study carried out in 1970 in Commonwealth countries revealed that on average, there are only five such experts per million inhabitants. Of these experts, 57.8 per cent could be found in the United Kingdom, 0.2 per cent in Sri Lanka, 0.6 per cent in Nigeria and 0.7 per cent in Zambia. On the basis of economic growth, Professor Vagale estimates demand trends at 7.5 to 10 per cent per year. In 1982-1983, ECA conducted a survey of training needs concerning urban and physical planners. The results are tabulated as follows:

Country	Population estimate 1980	Population growth rate	Current staff strength	Projected staff needs by the year 2000
Lesotho	1.2 million	2.5 %/year	9	80
Zimbabwe	7.5 million	3.5 " "	30	110
Guinea	5.18 million	2.8 " "	-	-
Zambia	5.67 million	3.1 " "	34	450
Swaziland	495,000	2.8 " "	-	-
Uganda	12.6 million	2.8 " "	2	384
Malawi	6.05 million	2.9 " "	23	118
Kenya	16.3 million	3.8 " "	3	450
Tanzania	18.1 million	3.3 " "	184	1 080
Mozambique	12.13 million	3.6 " "	3	120 (5 years)
Mauritius	826,200	2.16" "	2	-
Ethiopia	38.7 million	2.8 " "	4	70 (5 years)
Total	119.75 million		294	2 902

21. In a study he carried out in 1979, Professor Vagale estimated that the East and Southern African subregion needed 898 physical and urban planners in 1980 while Africa as a whole needed 3,024.

22. Expressed country needs for physical planning and urban planners indicate to what extent African officials have become aware of the role and place of physical planning in economic and social development. Rapid population growth in African countries has combined with the difficulty of checking the growth of major towns and the need for harmonious national development to make African officials attach greater importance to physical planning.

23. In order to solve the problem of staffing, Africa should avoid imitating the space organization approaches used in the industrialized countries. Those countries have accumulated several decades of experience in physical planning. They also have social, economic and political situations different from what prevails in Africa. African countries need a new approach which takes their level of development into account. The following table taken from the 1982-1983 ECA survey indicates where national physical and urban planning experts in some African countries have been trained.

Country	Africa	Other regions
Ethiopia	-	Italy, France, United Kingdom, Hungary, Bulgaria, Cuba, USSR
Lesotho	-	Canada, United Kingdom, Australia
Zimbabwe	Zimbabwe	United Kingdom
Guinea	-	Eastern countries
Zambia	-	United Kingdom, Australia, Canada, United States of America, New Zealand
Swaziland	Kenya	United States of America, Australia
Uganda	Kenya	Poland, Commonwealth countries
Malawi	Kenya	United Kingdom, Australia, United States of America, New Zealand, Poland
Kenya	Kenya	United Kingdom, United States of America, Poland
Tanzania	Tanzania, Kenya	United Kingdom, United States of America, India, Canada, Australia, Poland, the Netherlands
Mozambique	-	Cuba, Portugal, Italy, German democratic Republic
Mauritius	-	France, United Kingdom

IV. THE IMPORTANCE OF TRAINING

24. Physical planning is a relatively new discipline. In developing countries, physical planners often use techniques and strategies designed for developed economies and unsuited to the economic and social conditions of their countries. Highly qualified and trained graduates of higher educational institutions in developed countries therefore need to come down to earth and get to grips with conditions prevailing in Africa in order to adapt their expertise and approaches to the specific problems of their developing countries. This also applies to the most experienced experts who come from developed countries to assist developing countries.

25. As noted in the preceding chapter, the demand for physical and urban planners in Africa far exceeds the supply. And yet this is the type of personnel whose numbers should be increased constantly. For physical and other plans to be implemented effectively, sufficient numbers of competent and trained physical planners are required.

26. Since the university training prior to entry on duty is generally theoretical, practical experience and familiarization with conditions prevailing in various development sectors of the country would have to be acquired. Beginners should be given practical training through organized field visits to developing areas and be taught to put into practice the techniques of physical planning.

27. Physical planners should be capable of initiating new ideas and innovating techniques to solve the specific problems with which they are called upon to deal. Introductory courses, workshops and organized visits to other countries, all provide physical planners with so many opportunities to acquire this orientation.

28. The question arises as to whether the institutions now existing in Africa can make good the staffing deficit and provide the amount of training that the African situation requires.

V. TRAINING PROBLEMS

29. The training of physical planning experts raises serious organizational problems. In certain countries, the lack of highly qualified manpower makes the problem of recruitment more pressing than any other. Even when such manpower is provided under technical assistance, nationals of African countries will have to be trained. It is therefore important to train more nationals as counterparts to take over from expatriate technical assistant personnel.

30. The training of physical planners may be considered from the standpoint of financing, organization and administration.

31. The establishment of a national institute for training in physical planning raises comparatively serious financial problems both with regard to setting up and operating the institution. The financial aspect is less significant when the institution happens to be a multinational undertaking which has the added advantage of diversity in its research programmes. The cost of training is even less when carried out under bilateral arrangements in which certain developed countries or specialized United Nations agencies provide followships and host African students at their training centres. However, even though such training may be free of charge, it is often unsuited to the social and economic situation in African countries.

32. The main organizational problem is that of working out training programme contents and objectives in order to adapt them to national economic and social conditions. What is more, competent staff must be found to teach theoretical subjects and conduct practical work. Because the number of African experts who can provide such training is small, expatriate staff have to be recruited and they must in turn adapt their teaching methods and manuals to local conditions.

33. At the administrative level, the status of physical planners is crucial if such graduates are to be maintained in the public sector so that they do not drift into other sectors that offer more interesting prospects. Working conditions should provide possibilities for promotion and career development. It might be advisable, as happens in some countries, to give physical planners a special status that goes with appropriate remuneration, responsibility and career development opportunities. Physical planners must be made to feel that they are needed and that they have a role to play in contributing to the national development effort.

34. The aforementioned survey conducted by ECA revealed that there do exist a number of training institutions. Most of them form part of national universities. It would be interesting to find out the intake capacity of each institution, to see whether they accept students from other countries and to know the yearly intake and admission requirements for such students. The content of the various training programmes should be known as should the type of training and approach in order to ascertain whether the institutions are capable of meeting national needs. The responses received by ECA do not allow an accurate appraisal to be made of these institutions. Below is the list of institutions surveyed:

Country	Institutions	Training period
Zimbabwe 1/	University of Zimbabwe (urban planning)	2 years
Zambia 1/	University of Zambia (urban planning)	5 years
Senegal	- E.N.E.A. Collège Aménagement du Territoire - Ecole d'Architecture et d'Urbanisme - Technicien Supérieur d'Urbanisme	3 years 6 years 2 years
Kenya 1/	University of Nairobi (urban planning)	3 years
Tanzania 1/	ARDHI Institute (physical and urban planning)	3 years
Mozambique 1/	National Directorate of Housing (urban planning)	4 years
Ethiopia 2/	Ecole Technique Supérieure des Municipalités (urban planning)	3 years
Algeria 2/	- Université de Constantine (physical planning) - Ecole Polytechnique d'Architecture et d'Urbanisme d'Alger	- -
Egypt 2/	University of Cairo (urban planning)	4 years
Togo 2/	Ecole Africaine et Mauricienne d'Architecture et Urbanisme	5 years
Tunisia 2/	Université de Tunis (urban planning)	7 years
Ghana 3/	University of Science and Technology, Kumasi (physical planning)	3 years
Nigeria 3/	Ahmadou Bello University, Zaria (urban planning)	4 years
Morocco	Institut National d'Aménagement et d'Urbanisme	2 years

Sources: 1/ Reply to the 1982-1983 ECA questionnaire on appraisal of the needs of the physical planning sector in Africa.
2/ International Handbook of Universities - English Edition, 1981.
3/ Commonwealth Universities Yearbook, 1975.

35. In the debate concerning the orientation that the training of physical planners should take, some people maintain that specialized training programmes not exceeding one year would be appropriate. This obviously means that trainees should have had some basic training in one of the disciplines essential to physical planning, namely economic and geography. The trainees would then be made to acquire the necessary knowledge that would enable them to anlyse economic phenomena in relation to the transformation of space. Other people support the idea of a long training period with a programme spreading over several years and covering theoretical courses and practical work in the field.

36. Whichever principle is adopted, training programmes should be aimed at making students understand the significance of physical planning, the tasks involved and the use of analytical methods in finding practical solutions to problems relating to the harmonious development of specific geographical areas.

37. The content of training programmes will vary in accordance with the specific socio-economic features of each country. However it would be helpful to bear in mind a certain number of basic facts when preparing such programmes.

(a) Training needs vary from country to country in accordance with the specific features each country and the amount of financial resources available;

(b) The content of training courses should take into account the socio-economic situation of the country concerned and its geo-physical features;

(c) Training programmes should be objective and inspired both by the specific requirements of various physical planning disciplines and by the relationship existing among those disciplines. One objective of training courses is to enable physical planners to understand and grasp the interdependence of the various areas of development;

(d) In terms of content and spirit, training courses should take local conditions into account. Case studies, methodologies and research should be designed on the basis of the kind of environment in which students will be operating;

(e) Training programmes should comprise a judicious mixture of theory and practice;

(f) The training should develop team spirit of physical planners and their ability to work with a group because their job involves inputs from experts in various disciplines;

(g) The level of training courses should be the highest possible.

38. Generally, training courses should be designed to give students the knowledge and skills that will enable them to:

(a) Gather and evaluate views on development needs;

(b) Harmonize varying views into acceptable development objectives;

(c) Institute mechanisms for mobilizing people and resources for development projects;

(d) Formulate useful development indicators;

(e) Formulate policy instruments for attaining objectives;

(f) Gain a perception of the dynamics of space organization programmes on the basis of the distribution of activities and human settlements and the relations between them;

(g) Understand the methods that can be used in managing programmes and projects;

(h) Evaluate the progress of programmes, projects and planning as a whole 1/.

39. In every case physical planning staff at all levels should receive periodic training in the form of research institute seminars. Such courses should be specialized and at the same time geared to the needs identified in the profession. To the extent possible, such seminars should be organized subregionally so that they can at the same time provide a forum for the profitable exchange of experiences.

VI. ORGANIZATION OF TRAINING

40. It is obviously difficult, within the currently prevailing economic situation, to propose a formula that would be satisfactory at all levels. The economic situation of African countries, coupled with the financing required to manage and operate higher educational institutions, make it difficult for countries to support such an institution. Generally, there are three ways in which training could be organized:

(a) National institutions could be created. As has just been indicated, the running of such institutions weighs heavily on the budgets of African States. Existing national institutions are maintained with difficulty. The uncertainty as to the profitability of national institutions used to cover the needs of individual countries should also be noted;

(b) Subregional institutions could be created. This solution has the advantage of being profitable to all countries concerned. The management and operating costs are borne by the countries. The organization of training for staff is better planned. This is a desirable solution if countries happen to respect their commitments in managing the institution and all the more important since many subregional institutions are experiencing serious operating difficulties because States fail to honour their commitments;

1/ Some of the ideas presented here have been taken from the United Nations publication on training and research questions in regional development (DP/UN/INT-71-400).

(c) Staff could be sent outside Africa for training, This is what has been happening in most African countries to date. Some countries outside Africa provide facilities in the form of bilateral technical assistance programmes, fellowships and so on. This is, first of all, a less expensive option but it has the disadvantage of producing physical planners that have been trained in a social, economic and political environment different from that of Africa;

(d) The ECA survey also revealed that most national training institutions in Africa accept students from other African countries. Under the circumstances, even if the host country demands some contribution, it is seldom as much as what would have been required under an inter-State institution. The countries of origin are fairly comfortable with this situation but the host countries might find things difficult when they are obliged to expand infrastructures previously designed to meet national needs. The advantage of this approach is that it might lead to the conversion of the institution into an inter-State facility.

VII. CONCLUSION

41. There is no doubt that the experience of many African countries during the first two United Nations Development Decades has brought them a greater awareness of the need to place more emphasis on the spatial implications of development. It is however clear that, compared with the efforts made in socio-economic planning, physical planning theories and techniques are still embryonic in Africa. In order to make progress in this area, Africa would have to devote some effort to the training of manpower.

42. This question is important in view of the limited resources of African States. Although a number of them have begun to establish their own training institutions, it would surely be unwise of them to dissipate the limited resources they have. Training in physical planning clearly requires multinational co-operation. In order to institute such co-operation, the countries should demonstrate political initiative by contributing to the establishment and utilization of joint training institutions for physical planners as is done by Lesotho, Botswana, Swaziland and Malawi. Failing this, particularly in countries having very limited resources, it is most likely that training institutions can be established locally to meet the need for physical planners. A close relationship must also be established between training and research with a view to:

- Adopting approaches and theories to local conditions;

- Developing adequate teaching materials.

43. If there is one serious obstacles to development, it is the sometimes unreasoned persistence in believing that national space is homogeneous, that opportunities for progress and growth are identical throughtout the country and that national integration can be achieved on the basis of economic and social development plans alone. Physical planning will have to be incorporated into socio-economic planning if harmonious development is to be achieved. The countries of the region need skilled manpower to achieve such integration. The question is how to train such personnel, with what means and whether the governments are in a position to do this. If the arguers to these questions are in the negative, then the options open to African countries and any incidental constraints should be examined as should the type of training that would best fulfil the requirements of development with the means available.

44. Hopefully, the discussions arising from this paper will provide answers to these questions and to the no less important question of using available manpower. Despite the dearth of physical planners noted in most countries of Africa, what manpower happens to be available is sometimes under-utilized through assignment to extraneous tasks or deployment to departments where their skills go unused. One other question that may be raised is where physical planning services should be located in the State structure. Often, physical planning services come under the Ministry of Economic Planning, the Ministry of the Interior, the Lands Department or the Ministry of Town Planning and Habitat. The important thing is to find out where physical planning services could best play their part in the development process that African States are undergoing.

45. As previously indicated in the introduction, the objective of this paper is to pinpoint a number of problems relating to the training of manpower in the physical planning sector and to provoke discussion from which recommendations might be formulated to meet the needs identified in these areas.

46. The situation prevailing in developing countries is very complex and the disparities in regional development are very wide. Some backward regions are going under; others are making progress. The impact that the more advanced regions of each country have on backward regions can either emasculate them or draw them into the development process. Therefore as they become manifest, the processes of induction and integration reveal that the backwardness of certain areas is artificial and calls for a specific strategy on space organization and policy in physical planning 2/. Conducting such a policy requires competent people and proper integration of structures in the development process.

2/ Jacques Bugnicourt: "Disparités régionales et aménagement du territoire en Afrique" Armand Colin.